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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,392	07/26/2001	Alex James Hinchliffe	01.054.01	5032

7590	03/27/2007

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EXAMINER
HENNING, MATTHEW T

ART UNIT	PAPER NUMBER
2131	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/912,392	HINCHLIFFE ET AL.
	Examiner	Art Unit	
	Matthew T. Henning	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>17 January 2007</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>7-27,34-54 and 61-81</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>7-27,34-54 and 61-81</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>30 October 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

1   This action is in response to the communication filed on 1/17/2007.

2   **DETAILED ACTION**

3   *Continued Examination Under 37 CFR 1.114*

4

5   A request for continued examination under 37 CFR 1.114, including the fee set forth in

6   37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

7   eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

8   has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

9   37 CFR 1.114. Applicant's submission filed on 1/17/2007 has been entered.

10   *Response to Arguments*

11   Regarding applicants' argument that Hruska did not disclose a database of computer

12   files, the examiner does not find the argument persuasive. In response to applicant's arguments

13   against the references individually, one cannot show nonobviousness by attacking references

14   individually where the rejections are based on combinations of references. See *In re Keller*, 642

15   F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375

16   (Fed. Cir. 1986). In this case, the combination of Hruska and Le Pennec replaces the checksum

17   database with the database of virus-free certificates which falls within the scope of "computer

18   file". As such the examiner does not find the argument persuasive.

19

20   Regarding the applicants' argument that the "number of hits" of Le Pennec does not fall

21   within the scope of a "persistence flag", the examiner does not find the argument persuasive.

22   The claim requires that the "persistence flag" indicate whether an entry in the database should be

1   purged from said database during purge operations. The "number of hits" is used to determine

2   which entries will be removed from the database during purging (when the database is full and a

3   new entry is to be added). As such, the claim limitation is met, and the examiner does not find

4   the argument persuasive.

5

6   In response to applicant's argument that the references fail to disclose wherein said

7   database...from said computer file, the examiner does not find the argument persuasive. The

8   examiner points out that Le Pennec does in fact teach the database having fields for "a filename

9   of said computer file" as seen in Fig. 3 Element 305, "data identifying said requesting computer

10   and a storage location of said computer file" as seen in Fig. 3 Element 304 and Col. 10 Lines 27-

11   32, and "a checksum value calculated from said computer file" as seen in Fig. 5 Element 507.

12   As such, the examiner does not find the argument persuasive.

13   Claims 7-27, 34-54, and 61-81 have been examined.

14   All objections and rejections not presented below have been withdrawn.

15   *Claim Rejections - 35 USC § 101*

16   35 U.S.C. 101 reads as follows:

17   Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
18   any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
19   requirements of this title.
20
21   Claims 7-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed

22   to non-statutory subject matter. The claims are directed towards a "computer program product".

23   As a computer program listing falls within the scope of a computer program product, and a

24   computer program listing is a computer program *per se*, a computer program product would

25   include a computer program *per se*. A computer program *per se* is classified as Non-functional

1   Descriptive Language, and as such is not statutory. Therefore, the claims are rejected for failing

2   to meet the statutory requirements of 35 USC 101. See MPEP § 2106.IV.B.1(a).

3

4

5   *Claim Rejections - 35 USC § 103*

6   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

7   obviousness rejections set forth in this Office action:

8   *A patent may not be obtained though the invention is not identically disclosed or*
9   *described as set forth in section 102 of this title, if the differences between the subject matter*
10   *sought to be patented and the prior art are such that the subject matter as a whole would have*
11   *been obvious at the time the invention was made to a person having ordinary skill in the art to*
12   *which said subject matter pertains. Patentability shall not be negatived by the manner in which*
13   *the invention was made.*
14

15   Claims 7-13, 16-24, 27, 34-40, 43-51, 54, 61-67, 70-78, and 81 are rejected under 35

16   U.S.C. 103(a) as being unpatentable over Hruska et al. (US Patent Number 6,195,587)

17   hereinafter referred to as Hruska, and further in view of Le Pennec et al. (US Patent Number

18   6,892,303) hereinafter referred to as Le Pennec.

19   Regarding claims 7, and 17, Hruska disclosed a computer program product for

20   controlling a computer to detect malware, said computer program product comprising (See

21   Hruska Abstract and Col. 3 Lines 40-54 where it was implied that a computer program product

22   was implemented in this system because the system relies on processors, which rely on computer

23   programs): file access request detecting logic operable to detect a file access request to a

24   computer file by a requesting computer (See Hruska Col. 3 lines 63-65); file access clearance

25   request generating logic operable to generate a file access clearance request including data

1   identifying said computer file (See Hruska Col. 3 Lines 20-24 and Col. 4 Lines 20-23); file

2   access clearance request transmitting logic operable to transmit said file access clearance request

3   from said requesting computer to an assessment computer responsible for assessment of whether

4   said computer file contains malware (See Hruska Col. 3 Lines 20-24 and Col. 4 Lines 20-23);

5   file access clearance request receiving logic operable to receive at said assessment computer said

6   file access clearance request from a requesting computer (See Hruska Col. 5 Lines 60-66); file

7   access clearance response generating logic operable in dependence upon said data identifying

8   said computer file to determine if said computer file has previously been assessed as not

9   containing malware and to generate a file access clearance response (See Hruska Col. 5 Lines 3-

10   10); file access clearance response transmitting logic operable to transmit said file access

11   clearance response to said requesting computer (See Hruska Col. 5 Lines 66-67); file access

12   clearance response receiving logic operable to receive at said requesting computer said file

13   access clearance response from said assessment computer (See Hruska Col. 4 Lines 45-52 and

14   Col. 5 Lines 66-67 wherein it was implied that the requesting workstation received the report

15   because the file server sent the report to the workstation and the workstation used the report); and

16   file access permitting logic operable if said file access clearance response indicates said

17   computer file does not contain malware to permit said file access request by said requesting

18   computer (See Hruska Col. 4 Lines 45-52), and wherein said assessment computer stares a

19   database of computer files including for each file a checksum of the file when last determined to

20   be valid (See Hruska Col. 5 Lines 14-18 and 22-25), but Hruska failed to disclose wherein said

21   database includes for each computer file a persistence flag indicating whether an entry relating to

22   said computer file should be purged from said database during purge operations, or wherein said

1   database includes for each computer file fields specifying a filename of said computer file, and

2   data identifying said requesting computer and a storage location of said computer file.

3   Le Pennec teaches that in a virus detection system, in order to improve virus detection, a

4   virus-free certificate should be associated with a file and stored in a database (See Le Pennec

5   Col. 5 Lines 29-34 and Fig. 5 and associated text) as well as teaching that each certificate should

6   have a hit count (511) which is used to determine if the certificate will be removed from the

7   database upon adding a new certificate to a "full" database (See Le Pennec Fig. 7 and associated

8   text), and a filename of said computer file (See Le Pennec Fig. 5 Element 504), and data

9   identifying said requesting computer and a storage location of said computer file (See Le Pennec

10   Fig. 3 Element 304).

11   It would have been obvious to the ordinary person skilled in the art at the time of

12   invention to employ the teachings of Le Pennec in the virus detection system of Hruska by

13   utilizing the virus-free certificates in place of the checksums of Hruska. This would have been

14   obvious because the ordinary person skilled in the art would have been motivated to improve

15   upon the virus detection of Hruska.

16   Regarding claims 8, and 18, Hruska and Le Pennec disclosed that said data identifying

17   said computer file includes a checksum value calculated from said computer file (See Hruska

18   Col. 3 Lines 1-3 and Col. 4 Lines 13-16 and Le Pennec Fig. 5).

19   Regarding claims 9, and 19, Hruska and Le Pennec disclosed that said data identifying

20   said computer file includes one or more of a filename of said computer file, data identifying said

21   requesting computer and a storage location of said computer file (See Hruska Col. 5 Lines 43-48,

22   and 51-56 and Le Pennec Fig. 5).

1   Regarding claims 10, and 20, Hruska and Le Pennec disclosed that if said file access

2   clearance response indicates a scan of said computer file is required by said assessment

3   computer, then computer file transmitting logic is operable to transmit said computer file from

4   said requesting computer to said assessment computer, receiving at said assessment computer

5   said computer file from said requesting computer and performing a malware scan of said

6   computer file (See Hruska Col. 4 Lines 20-23 and 26-40 and Col. 5 lines 10-13).

7   Regarding claims 11 and 21, Hruska and Le Pennec disclosed that if said file access

8   clearance response indicates access to said computer file is denied, then triggering a denied

9   access response in said assessment computer (See Hruska Col. 5 Lines 18-22).

10   Regarding claim 22, Hruska and Le Pennec disclosed that if said file access clearance

11   response indicates access to said computer file is denied, then triggering a denied access

12   response in said requesting computer (See Hruska Col. 4 Lines 52-55).

13   Regarding claims 12 and 23, Hruska and Le Pennec disclosed that said assessment

14   computer stores a database of computer files previously assessed as to whether they contain

15   malware (See Hruska Col. 5 Lines 14-18).

16   Regarding claims 13 and 24, Hruska and Le Pennec disclosed that said database further

17   includes for each computer file another field specifying an access flag indicating whether access

18   to said computer file is denied (See Hruska Col. 5 Lines 14-18 and 22-25).

19   Regarding claims 16, and 27, Hruska and Le Pennec disclosed that a plurality of

20   requesting computers share access to an assessment computer for determining whether file

21   access requests by those requesting computers should be denied (See Col. 5 Lines 26-40).

1   Claims 34-40, 43-51, and 54 are rejected for the same reasons as claims 7-13, 16-24, and

2   27 respectively, and further because Hruska disclosed the method of the above rejected claims

3   (See Hruska Abstract).

4   Claims 61-67, 70-78, and 81 are rejected for the same reasons as claims 7-13, 16-24, and

5   27 respectively, and further because Hruska disclosed the system of the above rejected claims

6   (See Hruska Abstract).

7

8   Claims 14-15, 25-26, 41-42, 52-53, 68-69, and 79-80 are rejected under 35 U.S.C. 103(a)

9   as being unpatentable over Hruska and Le Pennec as applied to claims 7, 17, 34, 44, 61, and 71

10   above respectively, and further in view of Caccavale (US Patent Application Publication Number

11   2002/0129277).

12   Hruska and Le Pennec disclosed denying access to files in the event that they contain

13   characteristic forms of viruses (See Col. 1 Lines 62-65 and Col. 4 Lines 45-55), but failed to

14   disclose a message being sent to the file server indicating a switch to a mode of operation

15   wherein more files are denied for access. Hruska does, however, disclose that a user can indicate

16   that all files need to be checked by the file server regardless of prior results (See Hruska Col. 4

17   Lines 55-57).

18   Caccavale teaches that it is often the case that a virus checker program is unable to detect

19   a new virus (See Caccavale Paragraph 0075 Lines 1-2). Caccavale further teaches that in such a

20   case, an updated anti-virus pattern file should be distributed to the virus checker program, at

21   which point all the files can be marked as unchecked in order for all the files to be checked for

22   the new virus using the new pattern (See Hruska Paragraph 0075).

1   It would have been obvious to the ordinary person skilled in the art at the time of

2   invention to employ the teachings of Caccavale in the file checking system of Hruska and Le

3   Pennec by sending new anti-virus patterns to the file server, and in response to receiving the new

4   pattern, marking all the files as unchecked and needing to be scanned. This would have been

5   obvious because the ordinary person skilled in the art would have been motivated to protect the

6   workstations from files containing new viruses that the file server did not know of when the file

7   was originally scanned. In this manner, the fileserver would rescan all the files with a greater

8   likelihood of finding a virus and therefore denying access to more files.

9

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13   *Conclusion*

14   Claims 7-27, 34-54, and 61-81 have been rejected.

15
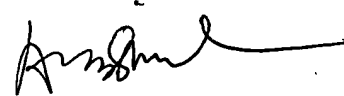
16

1   Any inquiry concerning this communication or earlier communications from the

2   examiner should be directed to Matthew T. Henning whose telephone number is (571) 272-3790.

3   The examiner can normally be reached on M-F 8-4.

4   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

5   supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the

6   organization where this application or proceeding is assigned is 571-273-8300.

7   Information regarding the status of an application may be obtained from the Patent

8   Application Information Retrieval (PAIR) system. Status information for published applications

9   may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

10 applications is available through Private PAIR only. For more information about the PAIR

11 system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

12 system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

13 like assistance from a USPTO Customer Service Representative or access to the automated

14 information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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17
18

19

20   Matthew Henning
21   Assistant Examiner
22   Art Unit 2131
23   3/21/2007

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